



SEQUENCE LISTING

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<120> COMPOSITIONS AND METHODS INVOLVING RESPIRATORY SYNCYTIAL VIRUS
SUBGROUP B STRAIN 9320

<130> 7682-135-999

<140> 10/811,508

<141> 2004-03-26

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<160> 56

<170> PatentIn version 3.1

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ttcaaaaattg	cataagtttt	ggtcttagcc	taatgtcggg	tgtggaacaa	ttcacaaaca	12720
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<210> 2
<211> 139
<212> PRT
<213> respiratory syncytial virus B 9320

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<400> 2

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Met Gly Cys Asn Ser Leu Ser Met Ile Lys Val Arg Leu Gln Asn Leu
1           5           10           15
Phe Asp Asn Asp Glu Val Ala Leu Leu Lys Ile Thr Cys Tyr Thr Asp
          20          25          30
Lys Leu Ile Leu Leu Thr Asn Ala Leu Ala Lys Ala Ala Ile His Thr
          35          40          45
Ile Lys Leu Asn Gly Ile Val Phe Ile His Val Ile Thr Ser Ser Glu
          50          55          60
Val Cys Pro Asp Asn Asn Ile Val Val Lys Ser Asn Phe Thr Thr Met
65          70          75          80
Pro Ile Leu Gln Asn Gly Gly Tyr Ile Trp Glu Leu Ile Glu Leu Thr

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				85					90					95			
His	Cys	Ser	Gln	Leu	Asn	Gly	Leu	Met	Asp	Asp	Asn	Cys	Glu	Ile	Lys		
			100					105					110				
Phe	Ser	Lys	Arg	Leu	Ser	Asp	Ser	Val	Met	Thr	Asp	Tyr	Met	Asn	Gln		
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Ile	Ser	Asp	Leu	Leu	Gly	Leu	Asp	Leu	Asn	Ser							
	130					135											

<210> 3
 <211> 124
 <212> PRT
 <213> respiratory syncytial virus B 9320

<400> 3

Met	Ser	Thr	Thr	Asn	Asn	Asn	Thr	Thr	Met	Gln	Arg	Leu	Met	Ile	Thr		
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Asp	Met	Arg	Pro	Leu	Ser	Met	Glu	Ser	Ile	Ile	Thr	Ser	Leu	Thr	Lys		
			20					25					30				
Glu	Ile	Ile	Thr	His	Lys	Phe	Ile	Tyr	Leu	Ile	Asn	Asn	Glu	Cys	Ile		
		35					40					45					
Val	Arg	Lys	Leu	Asp	Glu	Arg	Gln	Ala	Thr	Phe	Thr	Phe	Leu	Val	Asn		
	50					55					60						
Tyr	Glu	Met	Lys	Leu	Leu	His	Lys	Val	Gly	Ser	Thr	Lys	Tyr	Lys	Lys		
65				70					75					80			
Tyr	Thr	Glu	Tyr	Asn	Thr	Lys	Tyr	Gly	Thr	Phe	Pro	Met	Pro	Ile	Phe		
				85				90						95			
Ile	Asn	His	Gly	Gly	Phe	Leu	Glu	Cys	Ile	Gly	Ile	Lys	Pro	Thr	Lys		
			100				105						110				
His	Thr	Pro	Ile	Ile	Tyr	Lys	Tyr	Asp	Leu	Asn	Pro						
		115					120										

<210> 4
 <211> 391
 <212> PRT
 <213> respiratory syncytial virus B 9320

<400> 4

Met	Ala	Leu	Ser	Lys	Val	Lys	Leu	Asn	Asp	Thr	Leu	Asn	Lys	Asp	Gln		
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Leu	Leu	Ser	Ser	Ser	Lys	Tyr	Thr	Ile	Gln	Arg	Ser	Thr	Gly	Asp	Asn		
			20					25					30				
Ile	Asp	Thr	Pro	Asn	Tyr	Asp	Val	Gln	Lys	His	Leu	Asn	Lys	Leu	Cys		
		35					40					45					
Gly	Met	Leu	Leu	Ile	Thr	Glu	Asp	Ala	Asn	His	Lys	Phe	Thr	Gly	Leu		
	50					55					60						
Ile	Gly	Met	Leu	Tyr	Ala	Met	Ser	Arg	Leu	Gly	Arg	Glu	Asp	Thr	Ile		
65				70				75						80			
Lys	Ile	Leu	Lys	Asp	Ala	Gly	Tyr	His	Val	Lys	Ala	Asn	Gly	Val	Asp		
				85				90						95			
Ile	Thr	Thr	Tyr	Arg	Gln	Asp	Ile	Asn	Gly	Lys	Glu	Met	Lys	Phe	Glu		
			100				105						110				
Val	Leu	Thr	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Ile	Gln	Val	Asn	Ile	Glu		
		115					120					125					
Ile	Glu	Ser	Arg	Lys	Ser	Tyr	Lys	Lys	Met	Leu	Lys	Glu	Met	Gly	Glu		
	130					135					140						
Val	Ala	Pro	Glu	Tyr	Arg	His	Asp	Ser	Pro	Asp	Cys	Gly	Met	Ile	Ile		

145		150		155		160
Leu Cys Ile Ala	Ala Leu Val Ile Thr Lys	Leu Ala Ala Gly Asp Arg				
	165	170			175	
Ser Gly Leu Thr	Ala Val Ile Arg Arg Ala Asn Asn Val	Leu Lys Asn				
	180	185			190	
Glu Ile Lys Arg Tyr Lys Gly	Leu Ile Pro Lys Asp	Ile Ala Asn Ser				
	195	200			205	
Phe Tyr Glu Val Phe Glu Lys His Pro His Leu Ile	Asp Val Phe Val					
	210	215			220	
His Phe Gly Ile Ala Gln Ser Ser Thr Arg Gly Gly Ser Arg Val Glu						
225	230	235			240	
Gly Ile Phe Ala Gly Leu Phe Met Asn Ala Tyr Gly Ser Gly Gln Val						
	245	250			255	
Met Leu Arg Trp Gly Val Leu Ala Lys Ser Val Lys Asn Ile Met Leu						
	260	265			270	
Gly His Ala Ser Val Gln Ala Glu Met Glu Gln Val Val Glu Val Tyr						
	275	280			285	
Glu Tyr Ala Gln Lys Leu Gly Gly Glu Ala Gly Phe Tyr His Ile Leu						
	290	295			300	
Asn Asn Pro Lys Ala Ser Leu Leu Ser Leu Thr Gln Phe Pro Asn Phe						
305	310	315			320	
Ser Ser Val Val Leu Gly Asn Ala Ala Gly Leu Gly Ile Met Gly Glu						
	325	330			335	
Tyr Arg Gly Thr Pro Arg Asn Gln Asp Leu Tyr Asp Ala Ala Lys Ala						
	340	345			350	
Tyr Ala Glu Gln Leu Lys Glu Asn Gly Val Ile Asn Tyr Ser Val Leu						
	355	360			365	
Asp Leu Thr Ala Glu Glu Leu Glu Ala Ile Lys His Gln Leu Asn Pro						
	370	375			380	
Lys Glu Asp Asp Val Glu Leu						
385	390					

<210> 5
 <211> 241
 <212> PRT
 <213> respiratory syncytial virus B 9320

<400> 5

Met Glu Lys Phe Ala Pro Glu Phe His Gly Glu Asp Ala Asn Asn Lys						
1	5	10			15	
Ala Thr Lys Phe Leu Glu Ser Ile Lys Gly Lys Phe Ala Ser Ser Lys						
	20	25			30	
Asp Pro Lys Lys Lys Asp Ser Ile Ile Ser Val Asn Ser Ile Asp Ile						
	35	40			45	
Glu Val Thr Lys Glu Ser Pro Ile Thr Ser Gly Thr Asn Ile Asn Asn						
	50	55			60	
Pro Thr Ser Glu Ala Asp Ser Thr Pro Glu Ala Lys Thr Asn Tyr Pro						
65	70	75			80	
Arg Lys Pro Leu Val Ser Phe Lys Glu Asp Leu Thr Pro Ser Asp Asn						
	85	90			95	
Pro Phe Ser Lys Leu Tyr Lys Glu Thr Ile Glu Thr Phe Asp Asn Asn						
	100	105			110	
Glu Glu Glu Ser Ser Tyr Ser Tyr Glu Glu Ile Asn Asp Gln Thr Asn						
	115	120			125	
Asp Asn Ile Thr Ala Arg Leu Asp Arg Ile Asp Glu Lys Leu Ser Glu						
	130	135			140	
Ile Leu Gly Met Leu His Thr Leu Val Val Ala Ser Ala Gly Pro Thr						
145	150	155			160	
Ser Ala Arg Asp Gly Ile Arg Asp Ala Met Val Gly Leu Arg Glu Glu						

				165					170					175			
Met	Ile	Glu	Lys	Ile	Arg	Ala	Glu	Ala	Leu	Met	Thr	Asn	Asp	Arg	Leu		
			180					185					190				
Glu	Ala	Met	Ala	Arg	Leu	Arg	Asn	Glu	Glu	Ser	Glu	Lys	Met	Ala	Lys		
		195					200					205					
Asp	Thr	Ser	Asp	Glu	Val	Ser	Leu	Asn	Pro	Thr	Ser	Lys	Lys	Leu	Ser		
	210					215					220						
Asp	Leu	Leu	Glu	Asp	Asn	Asp	Ser	Asp	Asn	Asp	Leu	Ser	Leu	Asp	Asp		
225					230					235					240		
Phe																	

<210> 6
 <211> 256
 <212> PRT
 <213> respiratory syncytial virus B 9320

<400> 6

Met	Glu	Thr	Tyr	Val	Asn	Lys	Leu	His	Glu	Gly	Ser	Thr	Tyr	Thr	Ala		
1				5					10					15			
Ala	Val	Gln	Tyr	Asn	Val	Leu	Glu	Lys	Asp	Asp	Asp	Pro	Ala	Ser	Leu		
		20						25					30				
Thr	Ile	Trp	Val	Pro	Met	Phe	Gln	Ser	Ser	Val	Pro	Ala	Asp	Leu	Leu		
		35					40					45					
Ile	Lys	Glu	Leu	Ala	Ser	Ile	Asn	Ile	Leu	Val	Lys	Gln	Ile	Ser	Thr		
	50					55					60						
Pro	Lys	Gly	Pro	Ser	Leu	Arg	Val	Thr	Ile	Asn	Ser	Arg	Ser	Ala	Val		
65					70					75					80		
Leu	Ala	Gln	Met	Pro	Ser	Asn	Phe	Ile	Ile	Ser	Ala	Asn	Val	Ser	Leu		
				85					90					95			
Asp	Glu	Arg	Ser	Lys	Leu	Ala	Tyr	Asp	Val	Thr	Thr	Pro	Cys	Glu	Ile		
			100					105					110				
Lys	Ala	Cys	Ser	Leu	Thr	Cys	Leu	Lys	Val	Lys	Ser	Met	Leu	Thr	Thr		
		115					120					125					
Val	Lys	Asp	Leu	Thr	Met	Lys	Thr	Phe	Asn	Pro	Thr	His	Glu	Ile	Ile		
	130					135						140					
Ala	Leu	Cys	Glu	Phe	Glu	Asn	Ile	Met	Thr	Ser	Lys	Arg	Val	Ile	Ile		
145					150					155					160		
Pro	Thr	Tyr	Leu	Arg	Ser	Ile	Ser	Val	Lys	Asn	Lys	Asp	Leu	Asn	Ser		
				165					170					175			
Leu	Glu	Asn	Ile	Ala	Thr	Thr	Glu	Phe	Lys	Asn	Ala	Ile	Thr	Asn	Ala		
			180					185						190			
Lys	Ile	Ile	Pro	Tyr	Ala	Gly	Leu	Val	Leu	Val	Ile	Thr	Val	Thr	Asp		
		195					200					205					
Asn	Lys	Gly	Ala	Phe	Lys	Tyr	Ile	Lys	Pro	Gln	Ser	Gln	Phe	Ile	Val		
	210				215						220						
Asp	Leu	Gly	Ala	Tyr	Leu	Glu	Lys	Glu	Ser	Ile	Tyr	Tyr	Val	Thr	Thr		
225					230					235					240		
Asn	Trp	Lys	His	Thr	Ala	Thr	Arg	Phe	Ser	Ile	Lys	Pro	Leu	Glu	Asp		
				245					250						255		

<210> 7
 <211> 65
 <212> PRT
 <213> respiratory syncytial virus B 9320

<400> 7

Met	Gly	Asn	Thr	Ser	Ile	Thr	Ile	Glu	Phe	Thr	Ser	Lys	Phe	Trp	Pro		
1				5					10					15			

Tyr Phe Thr Leu Ile His Met Ile Leu Thr Leu Ile Ser Leu Leu Ile
 20 25 30
 Ile Ile Thr Ile Met Ile Ala Ile Leu Asn Lys Leu Ser Glu His Lys
 35 40 45
 Thr Phe Cys Asn Lys Thr Leu Glu Leu Gly Gln Met Tyr Gln Ile Asn
 50 55 60
 Thr
 65

<210> 8
 <211> 574
 <212> PRT
 <213> respiratory syncytial virus B 9320

<400> 8

Met Glu Leu Leu Ile His Arg Ser Ser Ala Ile Phe Leu Thr Leu Ala
 1 5 10 15
 Ile Asn Ala Leu Tyr Leu Thr Ser Ser Gln Asn Ile Thr Glu Glu Phe
 20 25 30
 Tyr Gln Ser Thr Cys Ser Ala Val Ser Arg Gly Tyr Phe Ser Ala Leu
 35 40 45
 Arg Thr Gly Trp Tyr Thr Ser Val Ile Thr Ile Glu Leu Ser Asn Ile
 50 55 60
 Lys Glu Thr Lys Cys Asn Gly Thr Asp Thr Lys Val Lys Leu Ile Lys
 65 70 75 80
 Gln Glu Leu Asp Lys Tyr Lys Asn Ala Val Thr Glu Leu Gln Leu Leu
 85 90 95
 Thr Gln Asn Thr Pro Ala Ala Asn Asn Arg Ala Arg Arg Glu Ala Pro
 100 105 110
 Gln Tyr Met Asn Tyr Thr Ile Asn Thr Thr Lys Asn Leu Asn Val Ser
 115 120 125
 Ile Ser Lys Lys Arg Lys Arg Arg Phe Leu Gly Phe Leu Leu Gly Val
 130 135 140
 Gly Ser Ala Ile Ala Ser Gly Ile Ala Val Ser Lys Val Leu His Leu
 145 150 155 160
 Glu Gly Glu Val Asn Lys Ile Lys Asn Ala Leu Leu Ser Thr Asn Lys
 165 170 175
 Ala Val Val Ser Leu Ser Asn Gly Val Ser Val Leu Thr Ser Lys Val
 180 185 190
 Leu Asp Leu Lys Ser Tyr Ile Asn Asn Gln Leu Leu Pro Ile Val Asn
 195 200 205
 Gln Gln Ser Cys Arg Ile Ser Asn Ile Glu Thr Val Ile Glu Phe Gln
 210 215 220
 Gln Lys Asn Ser Arg Leu Leu Glu Ile Thr Arg Glu Phe Ser Val Asn
 225 230 235 240
 Ala Gly Val Thr Thr Pro Leu Ser Thr Tyr Met Leu Thr Asn Ser Glu
 245 250 255
 Leu Leu Ser Leu Ile Asn Asp Met Pro Ile Thr Asn Asp Gln Lys Lys
 260 265 270
 Leu Met Ser Ser Asn Val Gln Ile Val Arg Gln Gln Ser Tyr Ser Ile
 275 280 285
 Met Ser Ile Ile Lys Glu Glu Val Leu Ala Tyr Val Val Gln Leu Pro
 290 295 300
 Ile Tyr Gly Val Ile Asp Thr Pro Cys Trp Lys Leu His Thr Ser Pro
 305 310 315 320
 Leu Cys Thr Thr Asn Ile Lys Glu Gly Ser Asn Ile Cys Leu Thr Arg
 325 330 335
 Thr Asp Arg Gly Trp Tyr Cys Asp Asn Ala Gly Ser Val Ser Phe Phe
 340 345 350

Pro	Gln	Ala	Asp	Thr	Cys	Lys	Val	Gln	Ser	Asn	Arg	Val	Phe	Cys	Asp	
		355					360					365				
Thr	Met	Asn	Ser	Leu	Thr	Leu	Pro	Ser	Glu	Val	Ser	Leu	Cys	Asn	Thr	
	370					375					380					
Asp	Ile	Phe	Asn	Ser	Lys	Tyr	Asp	Cys	Lys	Ile	Met	Thr	Ser	Lys	Thr	
385					390					395					400	
Asp	Ile	Ser	Ser	Ser	Val	Ile	Thr	Ser	Leu	Gly	Ala	Ile	Val	Ser	Cys	
				405					410					415		
Tyr	Gly	Lys	Thr	Lys	Cys	Thr	Ala	Ser	Asn	Lys	Asn	Arg	Gly	Ile	Ile	
			420					425					430			
Lys	Thr	Phe	Ser	Asn	Gly	Cys	Asp	Tyr	Val	Ser	Asn	Lys	Gly	Val	Asp	
	435					440						445				
Thr	Val	Ser	Val	Gly	Asn	Thr	Leu	Tyr	Tyr	Val	Asn	Lys	Leu	Glu	Gly	
	450				455						460					
Lys	Asn	Leu	Tyr	Val	Lys	Gly	Glu	Pro	Ile	Ile	Asn	Tyr	Tyr	Asp	Pro	
465					470					475					480	
Leu	Val	Phe	Pro	Ser	Asp	Glu	Phe	Asp	Ala	Ser	Ile	Ser	Gln	Val	Asn	
				485				490						495		
Glu	Lys	Ile	Asn	Gln	Ser	Leu	Ala	Phe	Ile	Arg	Arg	Ser	Asp	Glu	Leu	
			500				505						510			
Leu	His	Asn	Val	Asn	Thr	Gly	Lys	Ser	Thr	Thr	Asn	Ile	Met	Ile	Thr	
	515					520						525				
Thr	Ile	Ile	Ile	Val	Ile	Ile	Val	Val	Leu	Leu	Ser	Leu	Ile	Ala	Ile	
	530					535					540					
Gly	Leu	Leu	Leu	Tyr	Cys	Lys	Ala	Lys	Asn	Thr	Pro	Val	Thr	Leu	Ser	
545					550					555					560	
Lys	Asp	Gln	Leu	Ser	Gly	Ile	Asn	Asn	Ile	Ala	Phe	Ser	Lys			
				565					570							

<210> 9
 <211> 195
 <212> PRT
 <213> respiratory syncytial virus B 9320

<400> 9

Met	Ser	Arg	Arg	Asn	Pro	Cys	Lys	Phe	Glu	Ile	Arg	Gly	His	Cys	Leu	
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Asn	Gly	Arg	Arg	Cys	His	Tyr	Ser	His	Asn	Tyr	Phe	Glu	Trp	Pro	Pro	
			20					25					30			
His	Ala	Leu	Leu	Val	Arg	Gln	Asn	Phe	Met	Leu	Asn	Lys	Ile	Leu	Lys	
		35				40						45				
Ser	Met	Asp	Lys	Ser	Ile	Asp	Thr	Leu	Ser	Glu	Ile	Ser	Gly	Ala	Ala	
	50					55				60						
Glu	Leu	Asp	Arg	Thr	Glu	Glu	Tyr	Ala	Leu	Gly	Ile	Val	Gly	Val	Leu	
65					70					75					80	
Glu	Ser	Tyr	Ile	Gly	Ser	Ile	Asn	Asn	Ile	Thr	Lys	Gln	Ser	Ala	Cys	
				85					90					95		
Val	Ala	Met	Ser	Lys	Leu	Leu	Ile	Glu	Ile	Asn	Ser	Asp	Asp	Ile	Lys	
			100					105					110			
Lys	Leu	Arg	Asp	Asn	Glu	Glu	Pro	Asn	Ser	Pro	Lys	Ile	Arg	Val	Tyr	
		115					120					125				
Asn	Thr	Val	Ile	Ser	Tyr	Ile	Glu	Ser	Asn	Arg	Lys	Asn	Asn	Lys	Gln	
						135					140					
Thr	Ile	His	Leu	Leu	Lys	Arg	Leu	Pro	Ala	Asp	Val	Leu	Lys	Lys	Thr	
145					150					155					160	
Ile	Lys	Asn	Thr	Leu	Asp	Ile	His	Lys	Ser	Ile	Thr	Ile	Ser	Asn	Pro	
				165					170					175		
Lys	Glu	Ser	Thr	Val	Asn	Asp	Gln	Asn	Asp	Gln	Thr	Lys	Asn	Asn	Asp	
			180					185					190			

Ile Thr Gly
195

<210> 10
<211> 93
<212> PRT
<213> respiratory syncytial virus B 9320
<400> 10

Met	Ile	Lys	Met	Thr	Lys	Pro	Lys	Ile	Met	Ile	Leu	Pro	Asp	Lys	Tyr
1				5					10					15	
Pro	Cys	Ser	Ile	Ser	Ser	Ile	Leu	Ile	Ser	Ser	Glu	Ser	Met	Val	Ala
			20					25					30		
Thr	Phe	Asn	His	Lys	Asn	Ile	Leu	Gln	Phe	Asn	His	Asn	His	Leu	Asp
		35					40					45			
Asn	His	Gln	Cys	Leu	Leu	Asn	His	Ile	Phe	Asp	Glu	Ile	His	Trp	Thr
	50					55					60				
Pro	Lys	Asn	Leu	Leu	Asp	Thr	Thr	Gln	Gln	Phe	Leu	Gln	His	Leu	Asn
65					70					75					80
Ile	Pro	Glu	Asp	Ile	Tyr	Thr	Val	Tyr	Ile	Leu	Val	Ser			
				85					90						

<210> 11
<211> 2166
<212> PRT
<213> respiratory syncytial virus B 9320
<400> 11

Met	Asp	Pro	Ile	Ile	Asn	Gly	Asn	Ser	Ala	Asn	Val	Tyr	Leu	Thr	Asp
1				5					10					15	
Ser	Tyr	Leu	Lys	Gly	Val	Ile	Ser	Phe	Ser	Glu	Cys	Asn	Ala	Leu	Gly
			20					25					30		
Ser	Tyr	Leu	Phe	Asn	Gly	Pro	Tyr	Leu	Lys	Asn	Asp	Tyr	Thr	Asn	Leu
		35					40					45			
Ile	Ser	Arg	Gln	Ser	Pro	Leu	Glu	His	Met	Asn	Leu	Lys	Lys	Leu	
	50					55				60					
Thr	Ile	Thr	Gln	Ser	Leu	Ile	Ser	Arg	Tyr	His	Lys	Gly	Glu	Leu	Lys
65					70					75					80
Leu	Glu	Glu	Pro	Thr	Tyr	Phe	Gln	Ser	Leu	Leu	Met	Thr	Tyr	Lys	Ser
				85					90					95	
Met	Ser	Ser	Ser	Glu	Gln	Ile	Ala	Thr	Thr	Asn	Leu	Leu	Lys	Lys	Ile
			100					105					110		
Ile	Arg	Arg	Ala	Ile	Glu	Ile	Ser	Asp	Val	Lys	Val	Tyr	Ala	Ile	Leu
		115					120					125			
Asn	Lys	Leu	Gly	Leu	Lys	Glu	Lys	Asp	Arg	Val	Lys	Pro	Asn	Asn	Asn
	130					135					140				
Ser	Gly	Asp	Glu	Asn	Ser	Val	Leu	Thr	Thr	Ile	Ile	Lys	Asp	Asp	Ile
145					150					155					160
Leu	Ser	Ala	Val	Glu	Asn	Asn	Gln	Ser	Tyr	Thr	Asn	Ser	Asp	Lys	Asn
				165					170					175	
His	Ser	Val	Asn	Gln	Asn	Ile	Thr	Ile	Lys	Thr	Thr	Leu	Leu	Lys	Lys
			180					185					190		
Leu	Met	Cys	Ser	Met	Gln	His	Pro	Pro	Ser	Trp	Leu	Ile	His	Trp	Phe
		195					200					205			
Asn	Leu	Tyr	Thr	Lys	Leu	Asn	Asn	Ile	Leu	Thr	Gln	Tyr	Arg	Ser	Asn
	210					215					220				

Glu	Val	Lys	Ser	His	Gly	Phe	Ile	Leu	Ile	Asp	Asn	Gln	Thr	Leu	Ser
225					230					235					240
Gly	Phe	Gln	Phe	Ile	Leu	Asn	Gln	Tyr	Gly	Cys	Ile	Val	Tyr	His	Lys
				245					250					255	
Gly	Leu	Lys	Lys	Ile	Thr	Thr	Thr	Thr	Tyr	Asn	Gln	Phe	Leu	Thr	Trp
			260					265					270		
Lys	Asp	Ile	Ser	Leu	Ser	Arg	Leu	Asn	Val	Cys	Leu	Ile	Thr	Trp	Ile
		275					280					285			
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305					310					315					320
Leu	Lys	Leu	Phe	His	Asn	Glu	Gly	Phe	Tyr	Ile	Ile	Lys	Glu	Val	Glu
				325					330					335	
Gly	Phe	Ile	Met	Ser	Leu	Ile	Leu	Asn	Ile	Thr	Glu	Glu	Asp	Gln	Phe
			340					345					350		
Arg	Thr	Arg	Phe	Tyr	Asn	Ser	Met	Leu	Asn	Asn	Ile	Thr	Asp	Ala	Ala
		355					360					365			
Ile	Lys	Ala	Gln	Lys	Asn	Leu	Leu	Ser	Arg	Val	Cys	His	Thr	Leu	Leu
	370					375					380				
Asp	Lys	Thr	Val	Ser	Asp	Asn	Ile	Ile	Asn	Gly	Lys	Trp	Ile	Ile	Leu
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Leu	Ser	Lys	Phe	Leu	Lys	Leu	Ile	Lys	Leu	Ala	Gly	Asp	Asn	Asn	Leu
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			420					425					430		
Met	Val	Asp	Glu	Arg	Gln	Ala	Met	Asp	Ala	Val	Arg	Ile	Asn	Cys	Asn
		435					440					445			
Glu	Thr	Lys	Phe	Tyr	Leu	Leu	Ser	Ser	Leu	Ser	Thr	Leu	Arg	Gly	Ala
	450					455					460				
Phe	Ile	Tyr	Arg	Ile	Ile	Lys	Gly	Phe	Val	Asn	Thr	Tyr	Asn	Arg	Trp
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Pro	Thr	Leu	Arg	Asn	Ala	Ile	Val	Leu	Pro	Leu	Arg	Trp	Leu	Asn	Tyr
				485					490					495	
Tyr	Lys	Leu	Asn	Thr	Tyr	Pro	Ser	Leu	Leu	Glu	Ile	Thr	Glu	Asn	Asp
			500					505					510		
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Pro	Lys	Asp	Leu	Ile	Trp	Thr	Ser	Phe	Pro	Arg	Asn	Tyr	Met	Pro	Ser
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Asn	Glu	Cys	Asp	Leu	Tyr	Asn	Cys	Val	Val	Asn	Gln	Ser	Tyr	Leu	Asn
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Ile	Leu	Ala	Glu	Lys	Met	Ile	Ala	Glu	Asn	Ile	Leu	Gln	Phe	Phe	Pro
				645					650					655	
Glu	Ser	Leu	Thr	Arg	Tyr	Gly	Asp	Leu	Glu	Leu	Gln	Lys	Ile	Leu	Glu
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Leu	Lys	Ala	Gly	Ile	Ser	Asn	Lys	Ser	Asn	Arg	Tyr	Asn	Asp	Asn	Tyr
		675					680					685			
Asn	Asn	Tyr	Ile	Ser	Lys	Cys	Ser	Ile	Ile	Thr	Asp	Leu	Ser	Lys	Phe
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Asn	Gln	Ala	Phe	Arg	Tyr	Glu	Thr	Ser	Cys	Ile	Cys	Ser	Asp	Val	Leu

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Asp	Glu	Leu	His	Gly	Val	Gln	Ser	Leu	Phe	Ser	Trp	Leu	His	Leu	Thr
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Ile	Pro	Leu	Val	Thr	Ile	Ile	Cys	Thr	Tyr	Arg	His	Ala	Pro	Pro	Phe
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Ile	Lys	Asp	His	Val	Val	Asn	Leu	Asn	Glu	Val	Asp	Glu	Gln	Ser	Gly
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Leu	Tyr	Arg	Tyr	His	Met	Gly	Gly	Ile	Glu	Gly	Trp	Cys	Gln	Lys	Leu
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Lys	Phe	Ser	Ile	Thr	Ala	Leu	Ile	Asn	Gly	Asp	Asn	Gln	Ser	Ile	Asp
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Ile	Ser	Lys	Pro	Val	Arg	Leu	Ile	Glu	Gly	Gln	Thr	His	Ala	Gln	Ala
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Asp	Tyr	Leu	Leu	Ala	Leu	Asn	Ser	Leu	Lys	Leu	Leu	Tyr	Lys	Glu	Tyr
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Ala	Gly	Ile	Gly	His	Lys	Leu	Lys	Gly	Thr	Glu	Thr	Tyr	Ile	Ser	Arg
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Asp	Met	Gln	Phe	Met	Ser	Lys	Thr	Ile	Gln	His	Asn	Gly	Val	Tyr	Tyr
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Pro	Ala	Ser	Ile	Lys	Lys	Val	Leu	Arg	Val	Gly	Pro	Trp	Ile	Asn	Thr
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Gln	Glu	Leu	Glu	Tyr	Arg	Gly	Glu	Ser	Leu	Leu	Cys	Ser	Leu	Ile	Phe
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Arg	Asn	Ile	Trp	Leu	Tyr	Asn	Gln	Ile	Ala	Leu	Gln	Leu	Arg	Asn	His
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Ala	Leu	Cys	His	Asn	Lys	Leu	Tyr	Leu	Asp	Ile	Leu	Lys	Val	Leu	Lys
945					950					955					960
His	Leu	Lys	Thr	Phe	Asn	Leu	Asp	Ser	Ile	Asp	Met	Ala	Leu	Ser	
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Phe	Leu	Thr	Cys	Ile	Ile	Thr	Phe	Asp	Lys	Asn	Pro	Asn	Ala	Glu	
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Phe	Val	Thr	Leu	Met	Arg	Asp	Pro	Gln	Ala	Leu	Gly	Ser	Glu	Arg	
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Gln	Ala	Lys	Ile	Thr	Ser	Glu	Ile	Asn	Arg	Leu	Ala	Val	Thr	Glu	
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Val	Leu	Ser	Ile	Ala	Pro	Asn	Lys	Ile	Phe	Ser	Lys	Ser	Ala	Gln	
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His	Tyr	Thr	Thr	Thr	Glu	Ile	Asp	Leu	Asn	Asp	Ile	Met	Gln	Asn	
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Leu	Pro	Phe	Tyr	Lys	Ala	Glu	Lys	Ile	Val	Asn	Leu	Ile	Ser	Gly	
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Thr	Lys	Ser	Ile	Thr	Asn	Ile	Leu	Glu	Lys	Thr	Ser	Ala	Ile	Asp	
	1145					1150						1155			
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	1160					1165						1170			
Thr	Leu	Leu	Ile	Arg	Ile	Leu	Pro	Leu	Asp	Cys	Asn	Lys	Asp	Lys	
	1175					1180						1185			

Arg	Glu	Leu	Leu	Ser	Leu	Glu	Asn	Leu	Ser	Ile	Thr	Glu	Leu	Ser
1190						1195					1200			
Lys	Tyr	Val	Arg	Glu	Arg	Ser	Trp	Ser	Leu	Ser	Asn	Ile	Val	Gly
1205						1210					1215			
Val	Thr	Ser	Pro	Ser	Ile	Met	Phe	Thr	Met	Asp	Ile	Lys	Tyr	Thr
1220						1225					1230			
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1265						1270					1275			
Gln	Val	Leu	Thr	Lys	Lys	Gln	Arg	Asp	Gln	Ile	Asp	Leu	Leu	Ala
1280						1285					1290			
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1310						1315					1320			
Ala	Lys	Lys	Leu	Phe	Pro	Gln	Tyr	Leu	Ser	Val	Asn	Tyr	Leu	His
1325						1330					1335			
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1340						1345					1350			
Pro	Ala	Tyr	Arg	Thr	Thr	Asn	Tyr	His	Phe	Asp	Thr	Ser	Pro	Ile
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Asn	His	Val	Leu	Thr	Glu	Lys	Tyr	Gly	Asp	Glu	Asp	Ile	Asp	Ile
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Val	Phe	Gln	Asn	Cys	Ile	Ser	Phe	Gly	Leu	Ser	Leu	Met	Ser	Val
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Val	Glu	Gln	Phe	Thr	Asn	Ile	Cys	Pro	Asn	Arg	Ile	Ile	Leu	Ile
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Pro	Lys	Leu	Asn	Glu	Ile	His	Leu	Met	Lys	Pro	Pro	Ile	Phe	Thr
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Gly	Asp	Val	Asp	Ile	Ile	Lys	Leu	Lys	Gln	Val	Ile	Gln	Lys	Gln
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1445						1450					1455			
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1460						1465					1470			
Ser	Asn	Leu	Ile	Leu	Val	His	Lys	Met	Ser	Asp	Tyr	Phe	His	Asn
1475						1480					1485			
Asp	Tyr	Ile	Leu	Ser	Thr	Asn	Leu	Ala	Gly	His	Trp	Ile	Leu	Ile
1490						1495					1500			
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1505						1510					1515			
Gly	Glu	Gly	Tyr	Ile	Thr	Asp	His	Met	Phe	Ile	Asn	Leu	Asn	Val
1520						1525					1530			
Phe	Phe	Asn	Ala	Tyr	Lys	Thr	Tyr	Leu	Leu	Cys	Phe	His	Lys	Gly
1535						1540					1545			
Tyr	Gly	Lys	Ala	Lys	Leu	Glu	Cys	Asp	Met	Asn	Thr	Ser	Asp	Leu
1550						1555					1560			
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1565						1570					1575			
Ser	Lys	Val	Phe	Leu	Glu	Gln	Lys	Val	Ile	Lys	Tyr	Ile	Val	Asn
1580						1585					1590			
Gln	Asp	Thr	Ser	Leu	His	Arg	Ile	Lys	Gly	Cys	His	Ser	Phe	Lys
1595						1600					1605			
Leu	Trp	Phe	Leu	Lys	Arg	Leu	Asn	Asn	Ala	Lys	Phe	Thr	Val	Cys
1610						1615					1620			
Pro	Trp	Val	Val	Asn	Ile	Asp	Tyr	His	Pro	Thr	His	Met	Lys	Ala
1625						1630					1635			
Ile	Leu	Ser	Tyr	Ile	Asp	Leu	Val	Arg	Met	Gly	Leu	Ile	Asn	Val

1640	Asp Lys Leu Thr Ile Lys	1645	Asn Lys Asn Lys Phe	1650	Asn Asp Glu Phe
1655	Tyr Thr Ser Asn Leu Phe	1660	Tyr Ile Ser Tyr Asn	1665	Phe Ser Asp Asn
1670	Thr His Leu Leu Thr Lys	1675	Gln Ile Arg Ile Ala	1680	Asn Ser Glu Leu
1685	Glu Asn Asn Tyr Asn Lys	1690	Leu Tyr His Pro Thr	1695	Pro Glu Thr Leu
1700	Glu Asn Met Ser Leu Ile	1705	Pro Val Lys Ser Asn	1710	Asn Ser Asn Lys
1715	Pro Lys Ser Cys Ile Ser	1720	Gly Asn Thr Glu Ser	1725	Met Met Thr Ser
1730	Thr Phe Ser Asn Lys Met	1735	His Ile Lys Ser Ser	1740	Val Thr Thr
1745	Arg Leu Asn Tyr Ser Lys	1750	Gln Asp Leu Tyr Asn	1755	Leu Phe Pro Ile
1760	Val Val Ile Asp Arg Ile	1765	Ile Asp His Ser Gly	1770	Asn Thr Ala Lys
1775	Ser Asn Gln Leu Tyr Thr	1780	Thr Thr Ser His Gln	1785	Thr Ser Leu Val
1790	Arg Asn Ser Ala Ser Leu	1795	Tyr Cys Met Leu Pro	1800	Trp His His Val
1805	Asn Arg Phe Asn Phe Val	1810	Ser Ser Thr Gly	1815	Cys Lys Ile Ser
1820	Ile Glu Tyr Ile Leu Lys	1825	Asp Leu Lys Ile Lys	1830	Asp Pro Ser Cys
1835	Ile Ala Phe Ile Gly Glu	1840	Gly Ala Gly Asn Leu	1845	Leu Leu Arg Thr
1850	Val Val Glu Leu His Pro	1855	Asp Ile Arg Tyr Ile	1860	Tyr Arg Ser Leu
1865	Lys Asp Cys Asn Asp His	1870	Ser Leu Pro Ile Glu	1875	Phe Leu Arg Leu
1880	Tyr Asn Gly His Ile Asn	1885	Ile Asp Tyr Gly Glu	1890	Asn Leu Thr Ile
1895	Pro Ala Thr Asp Ala Thr	1900	Asn Asn Ile His Trp	1905	Ser Tyr Leu His
1910	Ile Lys Phe Ala Glu Pro	1915	Ile Ser Ile Phe Val	1920	Cys Asp Ala Glu
1925	Leu Pro Val Thr Ala Asn	1930	Trp Ser Lys Ile Ile	1935	Ile Glu Trp Ser
1940	Lys His Val Arg Lys Cys	1945	Lys Tyr Cys Ser Ser	1950	Val Asn Arg Cys
1955	Ile Leu Ile Ala Lys Tyr	1960	His Ala Gln Asp Asp	1965	Ile Asp Phe Lys
1970	Leu Asp Asn Ile Thr Ile	1975	Leu Lys Thr Tyr Val	1980	Cys Leu Gly Ser
1985	Lys Leu Lys Gly Ser Glu	1990	Val Tyr Leu Val Leu	1995	Thr Ile Gly Pro
2000	Ser Asn Ile Leu Pro Val	2005	Phe Asn Val Val Gln	2010	Asn Ala Lys Leu
2015	Ile Leu Ser Arg Thr Lys	2020	Asn Phe Ile Met Pro	2025	Lys Lys Thr Asp
2030	Lys Glu Ser Ile Asp Ala	2035	Asn Ile Lys Ser Leu	2040	Ile Pro Phe Leu
2045	Cys Tyr Pro Ile Thr Lys	2050	Lys Gly Ile Lys Thr	2055	Ser Leu Ser Lys
2060	Leu Lys Ser Val Val Asn	2065	Gly Asp Ile Leu Ser	2070	Tyr Ser Ile Ala
2075	Gly Arg Asn Glu Val Phe	2080	Ser Asn Lys Leu Ile	2085	Asn His Lys His
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	2120					2125					2130			
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Ile	Ile	Ser	Thr	Ser	Leu	Ile	Ile	Ala	Ala	Ile	Ile	Phe	Ile	Ile	Ser
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Glu	Arg	Val	Ser	Ser	Ser	Ile	Gln	Pro	Thr	Thr	Thr	Ser	Pro	Ile	His
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Thr	Asn	Ser	Ala	Thr	Ile	Ser	Pro	Asn	Thr	Lys	Ser	Glu	Thr	His	His
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Gly	Asn	Asn	Gln	Leu	Cys	Lys	Ser	Ile	Cys	Lys	Thr	Ile	Pro	Ser	Asn
			180					185					190		
Lys	Pro	Lys	Lys	Lys	Pro	Thr	Ile	Lys	Pro	Thr	Asn	Lys	Pro	Thr	Val
		195					200					205			
Lys	Thr	Thr	Asn	Lys	Arg	Asp	Pro	Lys	Thr	Pro	Ala	Lys	Met	Met	Lys
	210					215					220				
Lys	Glu	Thr	Thr	Thr	Asn	Pro	Thr	Lys	Lys	Pro	Thr	Leu	Lys	Thr	Thr
225					230					235					240
Glu	Gly	Asp	Thr	Ser	Thr	Ser	Gln	Ser	Thr	Val	Leu	Asp	Thr	Thr	Thr
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Ser	Lys	His	Thr	Ile	Gln	Gln	Gln	Ser	Leu	His	Ser	Ile	Thr	Ser	Glu
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cattttataca	tgatagagtc	cacatatcct	tacttaagt	aattgttaaa	tagtttaaca	14940
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atattatagt	tattaaaaaa	tatgcaaact	tttcaataat	ttagcttact	gattccaaaa	15120
ttatcatttt	atttttaagg	ggttgaataa	aagtctaaaa	ctaacaatga	tacatgtgca	15180
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<212> DNA
<213> respiratory syncytial virus B 9320

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ttggcaatga	taatctcaac	ctctctcata	attgcagcca	taatatcat	catctctgcc	180
aatcacaaag	ttactactaac	aacggttaca	gttcaaaca	taaaaaacca	cactgaaaaa	240
aacatcacca	cctaccttac	tcaagtctca	ccagaaaggg	ttagctcatc	catacaacct	300
acaaccacat	caccaatcca	cacaaattca	gctacaatat	caccaaatac	aaaatcgaaa	360
acacaccata	caacaacaca	agccaaaagc	agaatcacca	cttcaacaca	gaccaacaag	420
ccaagcacaa	aatcacgttc	aaaaaatcca	ccaaaaaac	caaaagatga	ttaccatttt	480
gaagtgttca	attttgttcc	ctgtagtata	tgtggcaaca	atcaactttg	caaatccatc	540
tgcaaaacaa	taccaagcaa	caaaccaaag	aaaaaaccaa	ccatcaaacc	cacaaacaaa	600
ccaaccgtca	aaaccacaaa	caaaagagac	ccaaaaacac	cagccaaaat	gatgaaaaaa	660
gaaaccacca	ccaaccacaac	aaaaaaacca	accctcaaga	ccacagaagg	agacaccagc	720
acctcacaa	ccactgtgct	cgacacaacc	acatcaaac	acacaatcca	acagcaatcc	780
ctccactcaa	tcacctccga	aaacacaccc	aactccacac	aaataccac	agcaaccgag	840
gcctccacat	caaattctac	ttaaaaaa				868

<210> 15
<211> 218
<212> DNA
<213> respiratory syncytial virus B 9320

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attccaacaa	aaaactaacc	catccaaact	aagctattcc	ttaaataaca	gtgctcaaca	120
gttaagaagg	ggctaatacca	tttttagta	taaaaataaa	ggtaaagcca	ataacataaa	180
ttggggcaaa	tacaaagatg	gctcttagca	aagtcaag			218

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<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer; BglII site, RSV B 9320 G

<400> 16

gatatcaaga tctacaataa cattggggca aatgc 35

<210> 17
<211> 31
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer; BglII site, RSV B 9320 G

<400> 17
gctaagagat ctttttgaat aactaagcat g 31

<210> 18
<211> 36
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer; BamHI site, RSV B 9320

<400> 18
atcaggatcc acaataacat tggggcaaat gcaacc 36

<210> 19
<211> 36
<212> DNA
<213> Artificial

<220>
<223> oligonucleotide primer; BamHI site, RSV 9320 G

<400> 19
ctggcattcg gatccgtttt atgtaactat gagttg 36

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<211> 27
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<220>
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<210> 21
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<400> 21

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<400> 26
ggtcacgatt tacaagataa gctcc 25

<210> 27
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 <220>
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 <400> 28
 cttacgtgtg cctaggtagc aag 23

<210> 29
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 <220>
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 acgagaaaaa aagtgtcaaa aactaatgtc tcg 33

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 <220>
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<210> 31
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 <212> DNA
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 <220>
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 <400> 31

gatctagagc tccaagcttg cggccgcgtc gac 33

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<220>
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<400> 32
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<220>
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gttaacttag agctctacat catc 24

<210> 34
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<220>
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<400> 34
gtgtggtcct aggcaatgca gcag 24

<210> 35
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<220>
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<400> 35
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<210> 36
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<220>
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<400> 36
gctaagtgaa cataaaacat tctgtaac 28

<210> 37
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<210> 38
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<210> 39
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 <220>
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 <220>
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 <400> 40
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<210> 46
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 <400> 48
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 <220>
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 <400> 51
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<210> 52
<211> 23
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<220>
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<400> 52
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23

<210> 53
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<220>
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<400> 53
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27

<210> 54
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<212> DNA
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<220>
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<400> 54
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33

<210> 55
<211> 8
<212> DNA
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<220>
<223> fragments of genome RSV9320 cDNA

<400> 55
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8

<210> 56
<211> 8
<212> DNA
<213> Respiratory syncytial virus

<220>
<223> fragments of genome RSV9320 cDNA

<400> 56
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8